

PRELIMINARY GRADING PLAN
FOR TPM NO. 20962 RPL#3

LINE	BEARING	DISTANCE
L1	N48°12'46"E	55.26'
L2	N00°02'51"W	4.09'

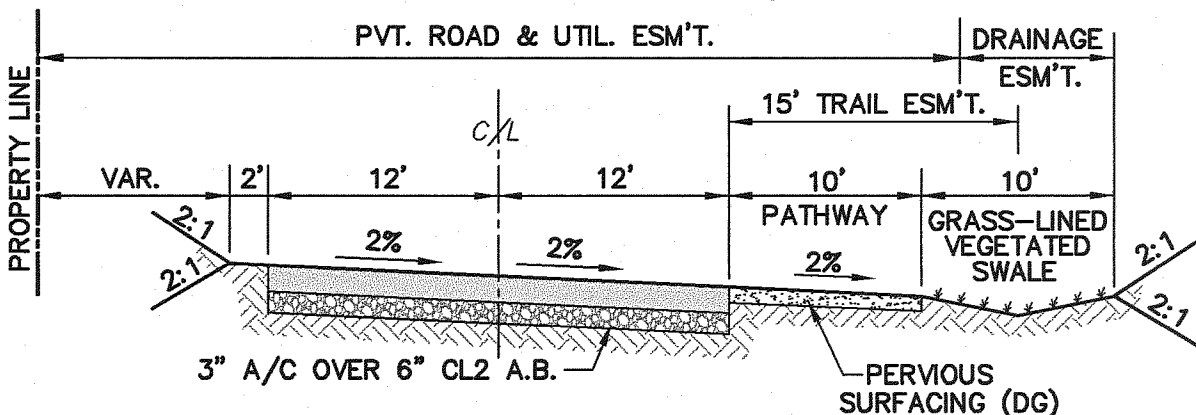
CURVE	DELTA ANGLE	RADIUS	LENGTH
C1	42°46'19"	80.00'	72.18'
C2	83°06'24"	55.00'	79.78'
C3	79°40'04"	80.00'	111.24'
C4	48°15'37"	40.00'	33.69'

(PCL. 1 & 4)
PRIVATE ROAD GRADES

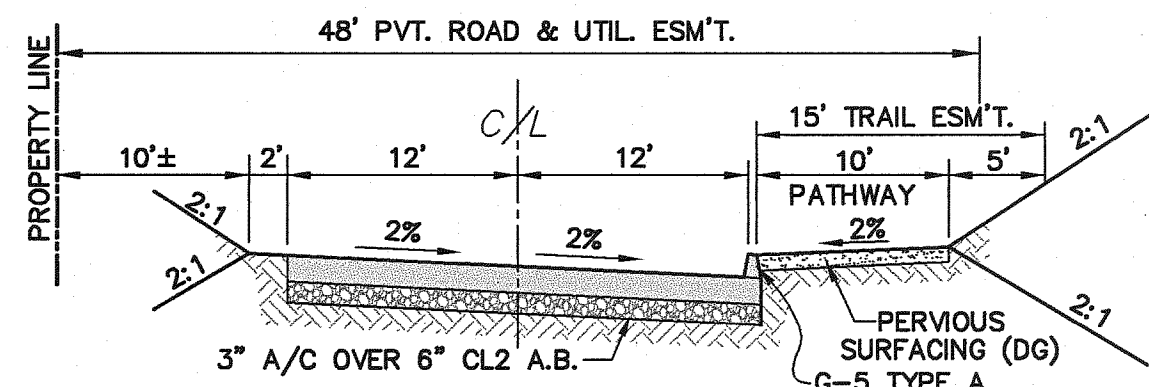
STA.	ELEV.	SLOPE
1+00	1637.41	-2.0%
2+00	1638.23	2.8%
3+00	1634.60	-2.0%
4+00	1639.63	3.8%
5+00	1638.55	-2.5%
6+00	1637.07	1.7%
7+00	1642.00	6.0%
8+00	1649.28	11.1%
9+00	1662.99	9.7%
9+21.92	1664.70	6.0%

(PCL. 3)
PRIVATE DRIVEWAY GRADES

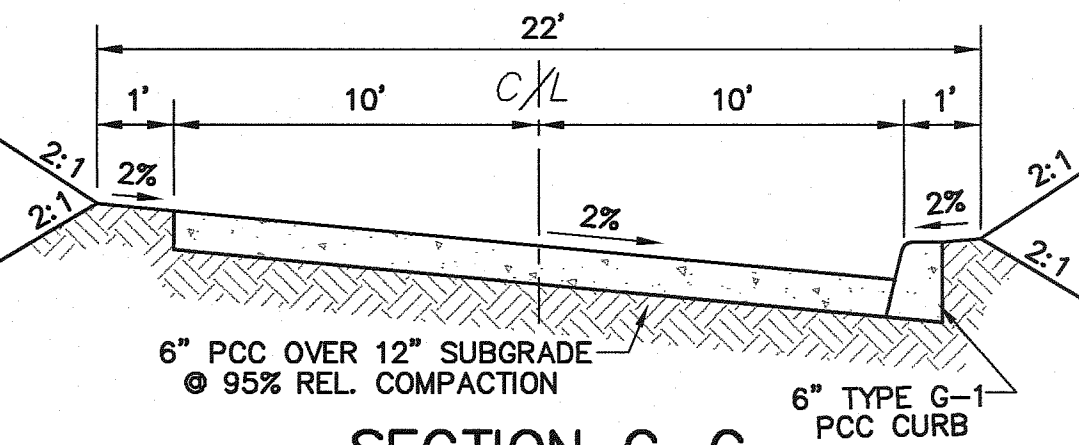
STA.	ELEV.	SLOPE
1+00	1664.70	-2%
2+00	1672.92	16.9%
3+00	1692.27	19.5%
4+00	1711.80	19.5%
5+00	1731.31	19.5%
6+00	1750.78	19.4%
7+00	1770.22	19.4%
8+00	1789.66	19.5%
9+00	1802.64	1.8%
9+29.80	1803.16	1.8%



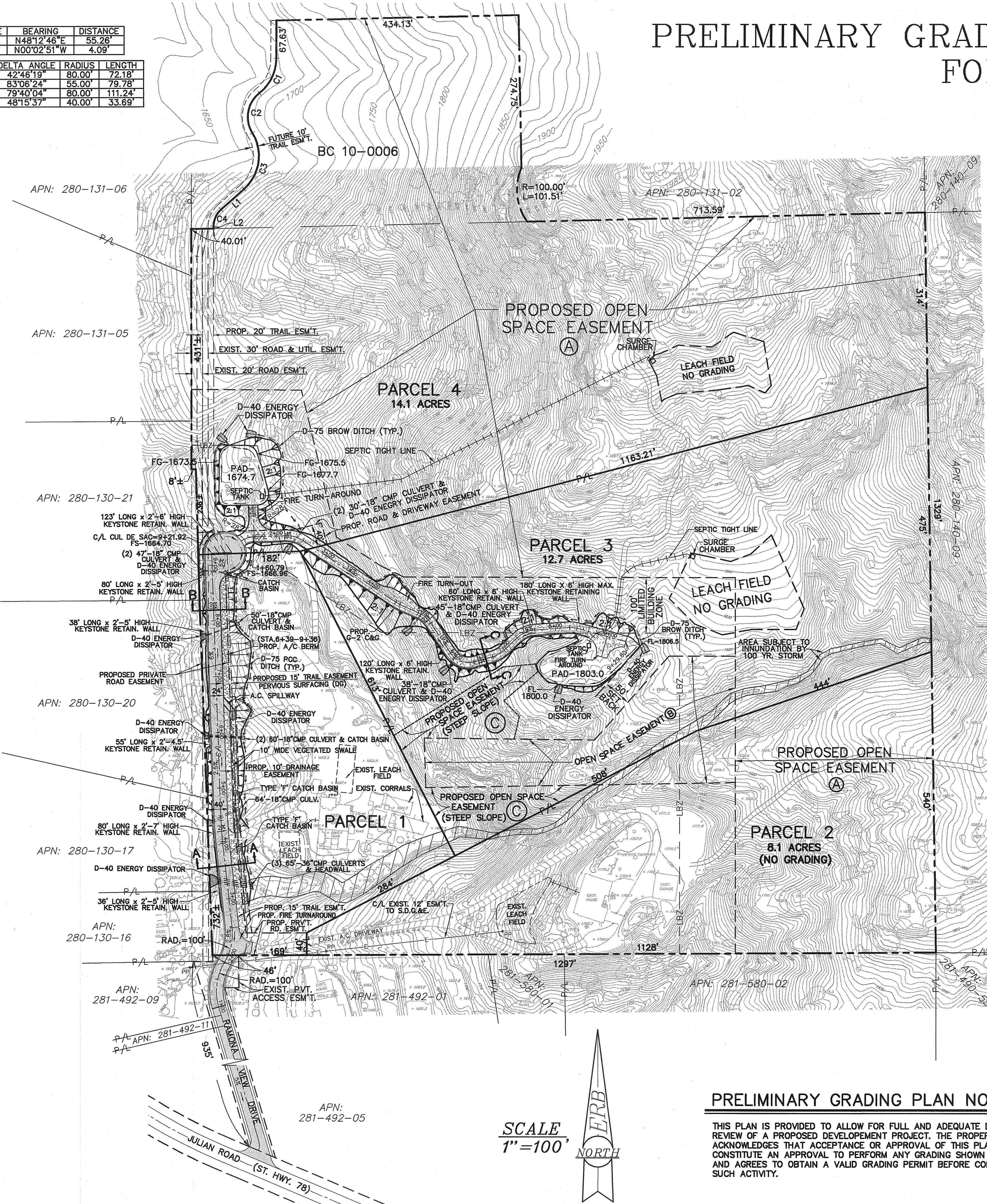
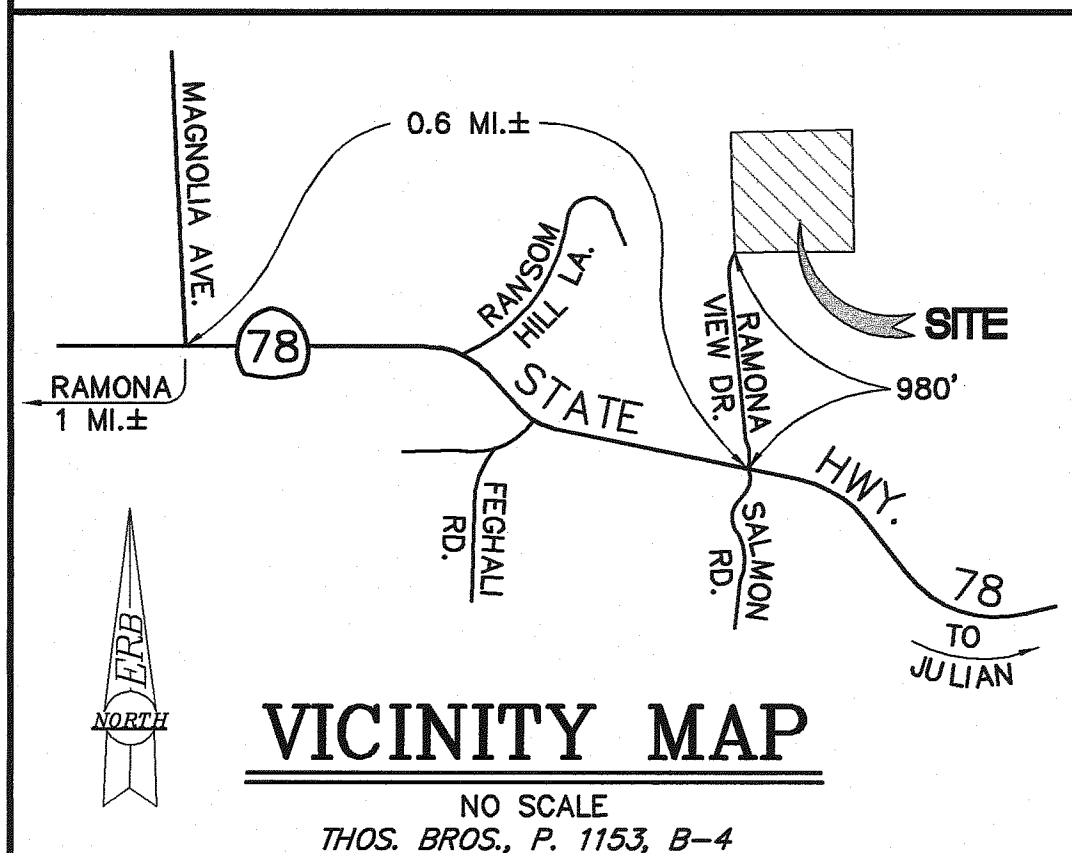
SECTION A-A
PROPOSED PVT. ROAD
NO SCALE



SECTION B-B
PROPOSED PVT. ROAD
NO SCALE



SECTION C-C
PROPOSED PVT. DRIVEWAY
NO SCALE



LEGEND:

TYP.	DRIVEWAY	R.S.Dwg.	(G-14)
2:1 CUT SLOPE			
2:1 FILL SLOPE			
PARCEL MAP BOUNDARY			
PROPOSED LOT LINE			
CENTERLINE			
PARCEL NUMBER			PARCEL 1
FINISH GRADE ELEV.			FG-235.5
PAD ELEV.			PAD-1803.0
ENERGY DISSIPATOR			(D-40)
DRAINAGE FLOW			1% MIN.
P.C.C. DRAINAGE DITCH			(D-75)
RETAINING WALL			
A/C PAVEMENT			
CONCRETE PAVEMENT			
VEGETATED SWALE			
LIMITED BUILDING ZONE			LBZ

PREPARED FOR:

TIM & CHRISTINE NEUMANN
1191 NO. RIDGELINE DRIVE
ORANGE, CA. 92669
(760) 458-9127

PREPARED BY:

ERB ENGINEERING, INC.
12320 STOWE DRIVE, STE. E,
POWAY, CA. 92064
(858) 748-2130

MATTHEW J. MILLER
R.C.E. 67144 EXP: 9/30/12
DATE: 10/06/10

SITE ADDRESS

18489 RAMONA VIEW DR.
RAMONA, CA. 92064

A.P.N.

280-130-03

GENERAL NOTES:

1. AERIAL TOPOGRAPHY, FLOWN ON 12-06-04 WAS USED FOR THE PREPARATION OF THIS MAP. THIS PLAN IS PROVIDED TO ALLOW FOR FULL AND ADEQUATE DISCRETIONARY REVIEW OF A PROPOSED DEVELOPMENT PROJECT. THE PROPERTY OWNER ACKNOWLEDGES THAT ACCEPTANCE OR APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL TO PERFORM ANY GRADING SHOWN HEREON, AND AGREES TO OBTAIN VALID GRADING PERMITS BEFORE COMMENCING SUCH ACTIVITY.
2. BASIS OF BEARING- PARCEL MAP- 10743
3. BASIS OF ELEVATIONS- COUNTY BM "R-36-A" ELEVATION- 1667.697
4. SEE SHEET #3 FOR TYPICAL PAD DETAILS
5. PROPOSED OPEN SPACE EASEMENT (A) - BIOLOGICAL
6. PROPOSED OPEN SPACE EASEMENT (B) - SENSITIVE RESOURCES

GRADING TABULATION

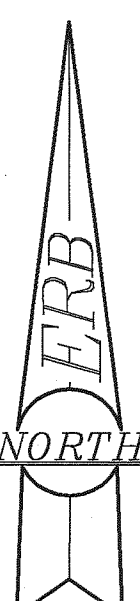
AMOUNT OF CUT:	5500 CUBIC YARDS
AMOUNT OF FILL:	5500 CUBIC YARDS.
AMOUNT OF EXPORT/IMPORT SOIL:	0 CUBIC YARDS.
MAXIMUM HEIGHT OF CUT SLOPE:	19 FEET.
MAXIMUM HEIGHT OF FILL SLOPE:	25 FEET.

NOTE: THE QUANTITIES SHOWN ON THESE PLANS ARE FOR PLANNING PURPOSES ONLY. THE CONTRACTOR SHALL PERFORM HIS/HER OWN CALCULATIONS TO SATISFY HIM/HERSELF AS TO THE ACTUAL QUANTITIES TO BE MOVED.

PRELIMINARY GRADING PLAN NOTE

THIS PLAN IS PROVIDED TO ALLOW FOR FULL AND ADEQUATE DISCRETIONARY REVIEW OF A PROPOSED DEVELOPMENT PROJECT. THE PROPERTY OWNER ACKNOWLEDGES THAT ACCEPTANCE OR APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL TO PERFORM ANY GRADING SHOWN HEREON, AND AGREES TO OBTAIN A VALID GRADING PERMIT BEFORE COMMENCING SUCH ACTIVITY.

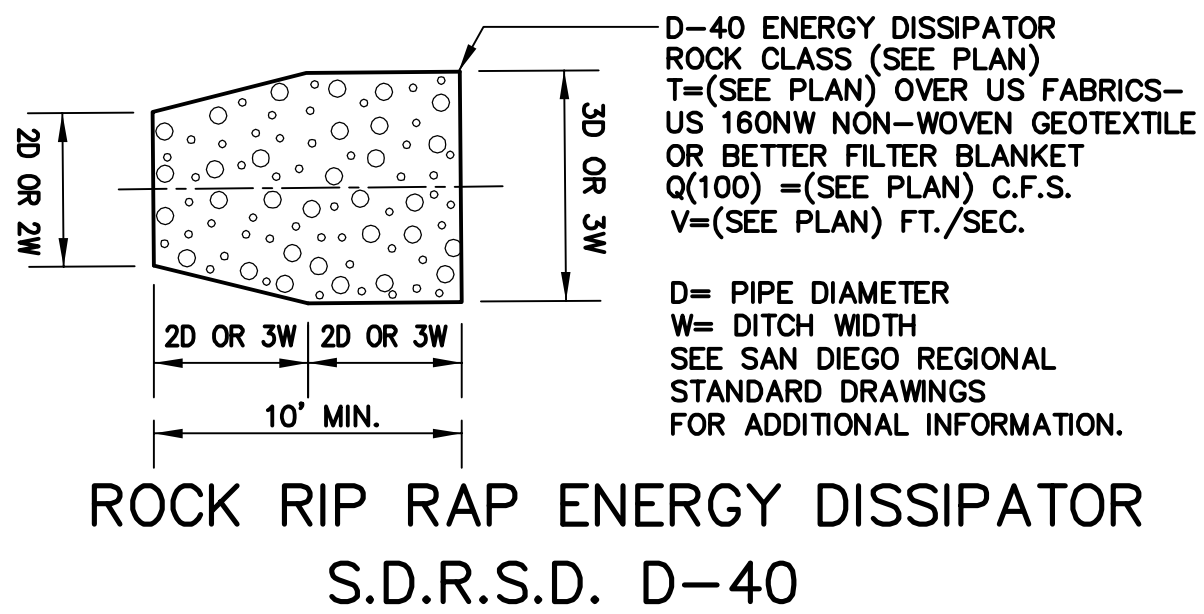
SCALE
1"=100'



PRELIMINARY GRADING PLAN FOR TPM NO. 20962 RPL#3

EROSION CONTROL NOTES

1. ALL BUILDING PADS ARE TO BE DIKED AND THE DIKES MAINTAINED TO PREVENT WATER FROM FLOWING FROM THE PAD TO THE STREETS. UNTIL AFTER DRIVEWAYS ARE PAVED AND WATER CAN FLOW FROM THE PADS WITHOUT CAUSING EROSION, OR CONSTRUCT DRAINAGE FACILITIES TO THE SATISFACTION OF THE COUNTY DEPARTMENT OF PUBLIC WORKS THAT WILL ALLOW WATER TO DRAIN FROM THE PAD WITHOUT CAUSING EROSION.
2. TOPS OF ALL SLOPES ARE TO BE DIKED OR TRENCHED TO PREVENT WATER FROM FLOWING OVER THE CREST OF SLOPES.
3. MANUFACTURED SLOPES AND PADS SHALL BE ROUNDED VERTICALLY AND HORIZONTALLY AS APPROPRIATE TO BLEND WITH THE SURROUNDING TOPOGRAPHY.
4. AS SOON AS CUTS OR EMBANKMENTS ARE COMPLETE, BUT NOT LATER THAN OCTOBER 1, ALL CUT AND FILL SLOPES SHALL BE STABILIZED WITH A HYDROMULCH MIXTURE OR AN EQUAL TREATMENT APPROVED BY THE COUNTY DEPARTMENT OF PUBLIC WORKS. BETWEEN OCTOBER 1 AND APRIL 15, APPROVED SLOPE PROTECTION MEASURES SHALL PROCEED IMMEDIATELY BEHIND THE EXPOSURE OF CUT SLOPES AND/OR THE CREATION OF EMBANKMENT SLOPES.
5. CATCH BASINS, DESILTING BASINS AND STORM DRAIN SYSTEMS SHALL BE INSTALLED TO THE SATISFACTION OF THE COUNTY DEPARTMENT OF PUBLIC WORKS.
6. GRAVEL BAG CHECK DAMS ARE TO BE PLACED IN A MANNER APPROVED BY THE COUNTY DEPARTMENT OF PUBLIC WORKS IN UNPAVED STREETS WITH GRADIENTS IN EXCESS OF 2% AND ON OR IN OTHER GRADED OR EXCAVATED AREAS AS REQUIRED BY THE COUNTY DEPARTMENT OF PUBLIC WORKS.
7. THE DEVELOPER SHALL MAINTAIN THE PLANTING AND EROSION CONTROL MEASURES DESCRIBED ABOVE UNTIL RELIEVED OF SAME BY THE COUNTY DEPARTMENT OF PUBLIC WORKS. THE DEVELOPER TO REMOVE ALL SOIL INTERCEPTED BY THE GRAVEL BAGS, CATCH BASINS AND DESILTING BASINS AND KEEP THESE FACILITIES CLEAN AND FREE OF SILT AND SAND AND SHALL REPAIR ANY ERODED SLOPES AS DIRECTED BY THE COUNTY DEPARTMENT OF PUBLIC WORKS.
8. NO AREA BEING DISTURBED SHALL EXCEED 50 ACRES AT ANY GIVEN TIME WITHOUT DEMONSTRATING TO THE SAN DIEGO COUNTY DPW DIRECTOR'S SATISFACTION THAT ADEQUATE EROSION AND SEDIMENT CONTROL CAN BE MAINTAINED, ANY DISTURBED AREA THAT IS NOT ACTIVELY GRADED FOR 15 DAYS MUST BE FULLY PROTECTED FROM EROSION. UNTIL ADEQUATE LONG-TERM PROTECTIONS ARE INSTALLED. THE DISTURBED AREA SHALL BE INCLUDED WHEN CALCULATING THE ACTIVE DISTURBANCE AREA. ALL EROSION CONTROL MEASURES SHALL REMAIN INSTALLED AND MAINTAINED DURING ANY INACTIVE PERIOD.
9. THE PROPERTY OWNER IS OBLIGATED TO INSURE COMPLIANCE WITH ALL APPLICABLE STORM WATER REGULATIONS AT ALL TIMES. THE BMP'S THAT HAVE BEEN INCORPORATED INTO THIS PLAN SHALL BE IMPLEMENTED AND MAINTAINED TO EFFECTIVELY PREVENT THE POTENTIALLY NEGATIVE IMPACTS OF THIS PROJECT'S CONSTRUCTION ACTIVITIES ON STORM WATER QUALITY. THE MAINTENANCE OF THE BMP'S IS THE PERMITTEE'S RESPONSIBILITY, AND FAILURE TO PROPERLY INSTALL OR MAINTAIN THE BMP'S MAY RESULT IN ENFORCEMENT ACTION BY THE COUNTY OF SAN DIEGO OR OTHERS. IF INSTALLED BMP'S FAIL, THEY MUST BE REPAIRED REPLACED WITH AN ACCEPTABLE ALTERNATE WITHIN 24 HOURS, OR AS SOON AS SAFE TO DO SO.
10. AFTER UTILITY TRENCHES ARE BACKFILLED AND COMPACTED, THE SURFACES OVER SUCH TRENCHES SHALL BE MOUNDED SLIGHTLY TO PREVENT CHANNELING OF WATER IN THE TRENCH AREA. CARE SHOULD BE EXERCISED TO PROVIDE FOR CROSS FLOW AT FREQUENT INTERVALS WHERE TRENCHES ARE NOT ON THE CENTERLINE OF A CROWDED STREET.
11. ALL BUILDING PADS SHOULD BE SLOPED TOWARDS THE DRIVEWAYS AND VELOCITY CHECK DAMS PROVIDED AT THE BASE OF ALL DRIVEWAYS DRAINING INTO THE STREET.
12. PROVIDE VELOCITY CHECK DAMS IN ALL UNPAVED GRADED CHANNELS AT THE INTERVALS INDICATED BELOW:
- | GRADE OF CHANNEL | INTERVALS BETWEEN CHECK DAMS |
|------------------|------------------------------|
| LESS THAN 3% | 100 FEET |
| 3% TO 6% | 50 FEET |
| OVER 6% | 25 FEET |
13. PROVIDE VELOCITY CHECK DAMS IN ALL PAVED STREET AREAS ACCORDING TO INTERVALS INDICATED BELOW. VELOCITY CHECK DAMS MAY BE CONSTRUCTED OF GRAVEL BAGS, TIMBER OR OTHER EROSION RESISTANT MATERIALS APPROVED BY THE COUNTY ENGINEER, AND SHALL EXTEND COMPLETELY ACROSS THE STREET OR CHANNEL AT RIGHT ANGLES TO THE CENTERLINE. VELOCITY CHECK DAMS MAY ALSO SERVE AS SEDIMENT TRAPS.
- | GRADE OF STREET | INTERVAL | NO. OF BAGS HIGH |
|-----------------|---------------|------------------|
| LESS THAN 2% | 200 FEET MAX. | 1 |
| 2% TO 4% | 100 FEET | 1 |
| 4% TO 6% | 50 FEET | 1 |
| 6% TO 10% | 50 FEET | 2 |
| MORE THAN 10% | 25 FEET | 2 |



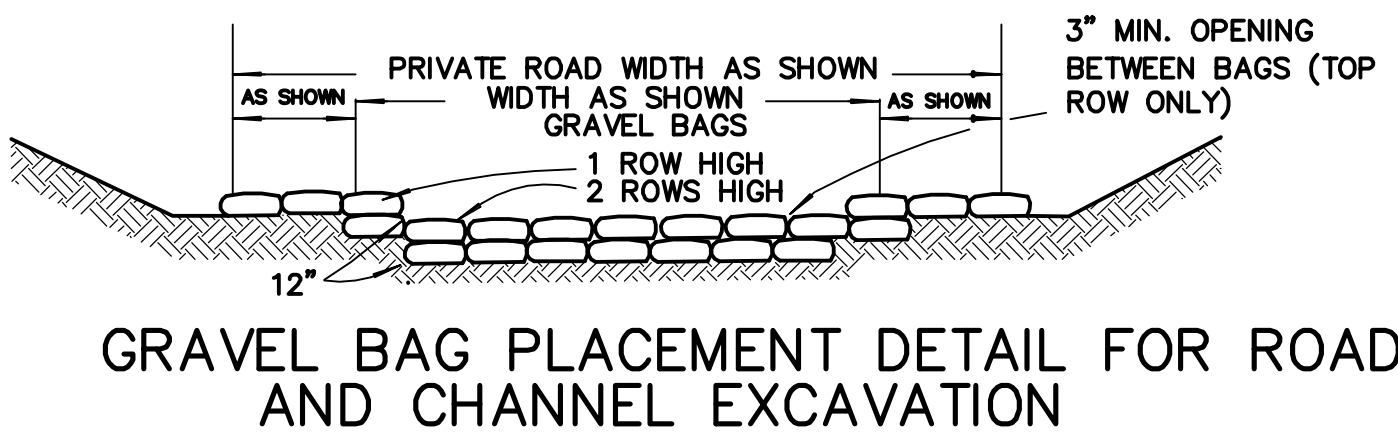
N.T.S.

EROSION CONTROL NOTES (CONTINUED)

14. PROVIDE A GRAVEL BAG SILT BASIN OR TRAP BY EVERY STORM DRAIN INLET TO PREVENT SEDIMENT FROM ENTERING DRAIN SYSTEM.
15. GRAVEL BAGS AND FILL MATERIAL SHALL BE STOCKPILED AT INTERVALS, READY FOR USE WHEN REQUIRED.
16. ALL EROSION CONTROL DEVICES WITHIN THE DEVELOPMENT SHOULD BE MAINTAINED DURING AND AFTER EVERY RUNOFF-PRODUCING STORM, MAINTENANCE CREWS SHALL HAVE ACCESS TO ALL AREAS.
17. PROVIDE ROCK RIPRAP ON CURVES AND STEEP DROPS IN ALL EROSION PRONE DRAINAGE CHANNELS DOWNSTREAM FROM THE DEVELOPMENT. THIS PROTECTION WOULD REDUCE EROSION CAUSED BY THE INCREASED FLOWS THAT MAY BE ANTICIPATED FROM DENUDED SLOPES, OR FROM IMPERVIOUS SURFACES.
18. ANY PROPOSED ALTERNATE CONTROL MEASURES MUST BE APPROVED IN ADVANCE BY ALL RESPONSIBLE AGENCIES: I.E., COUNTY ENGINEER, DEPARTMENT OF SANITATION AND FLOOD CONTROL, OFFICE OF ENVIRONMENTAL MANAGEMENT, ETC.

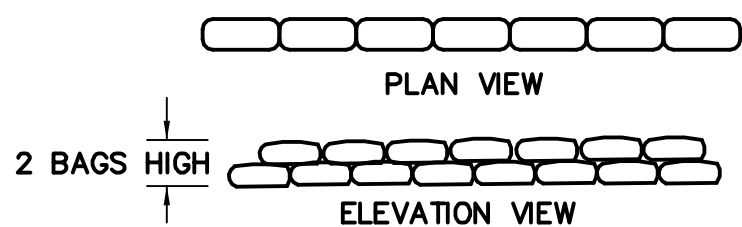
STORM WATER PROTECTION NOTES

1. DURING THE RAINY SEASON THE AMOUNT OF EXPOSED SOIL ALLOWED AT ONE TIME SHALL NOT EXCEED THAT WHICH CAN BE ADEQUATELY PROTECTED BY THE PROPERTY OWNER IN THE EVENT OF A RAINSTORM. 125% OF ALL SUPPLIES NEEDED FOR BMP (BEST MANAGEMENT PRACTICES) MEASURES SHALL BE RETAINED ON THE JOB SITE IN A MANNER THAT ALLOWS FULL DEPLOYMENT AND COMPLETE INSTALLATION IN 48 HOURS OR LESS OF A FORECAST RAIN.
1. GRAVEL BAGS SHALL BE SPACED AT 25', 50', AND 100' INTERVALS MAXIMUM ALONG ALL PRIVATE DRIVEWAYS, ROADS, & CHANNELS WHERE SLOPES ARE >15%, 10% AND 2% RESPECTIVELY.
2. GRAVEL BAGS SHALL BE SPACED AT 125' INTERVALS MAXIMUM WHERE GRADES ARE 1% OR LESS.
3. GRAVEL BAGS SHALL BE PLACED ON THE UPSTREAM SIDE OF ALL DRAINAGE INLETS TO MINIMIZE SILT DEPOSITS IN THE INLETS AND PIPES.
4. MINIMUM HEIGHT OF GRAVEL BAG CHECK DAMS SHALL BE 12 INCHES.



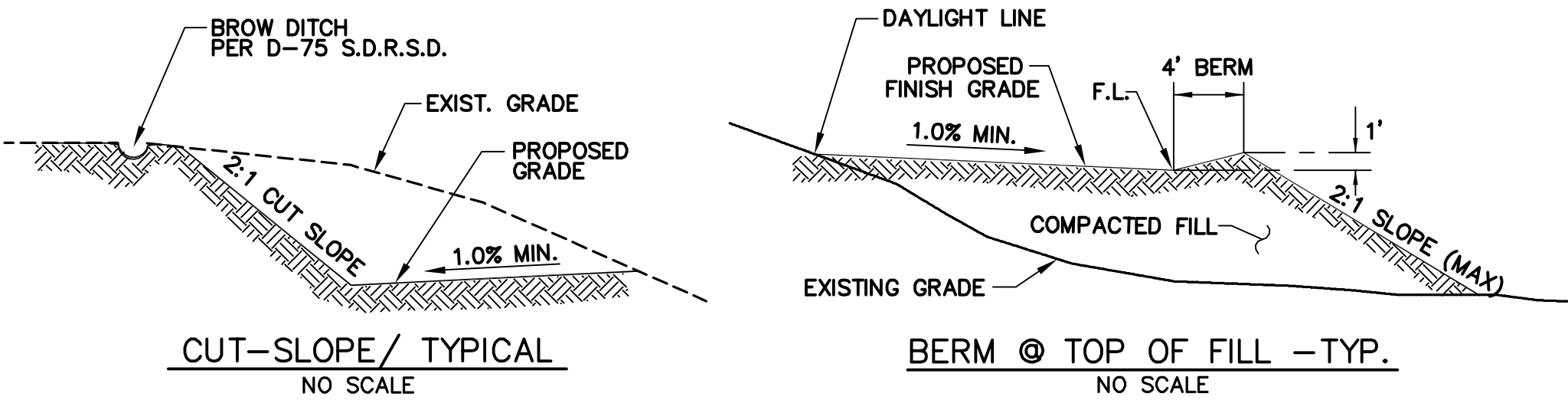
GRAVEL BAG PLACEMENT DETAIL FOR ROAD AND CHANNEL EXCAVATION

NO SCALE
NOTE:
GRAVEL BAGS SHALL BE PLACED AS NEEDED FOR PROPER EROSION CONTROL



GENERAL GRAVEL BAG PLACEMENT

NO SCALE



EARTH BERM & BROW DITCH DETAIL

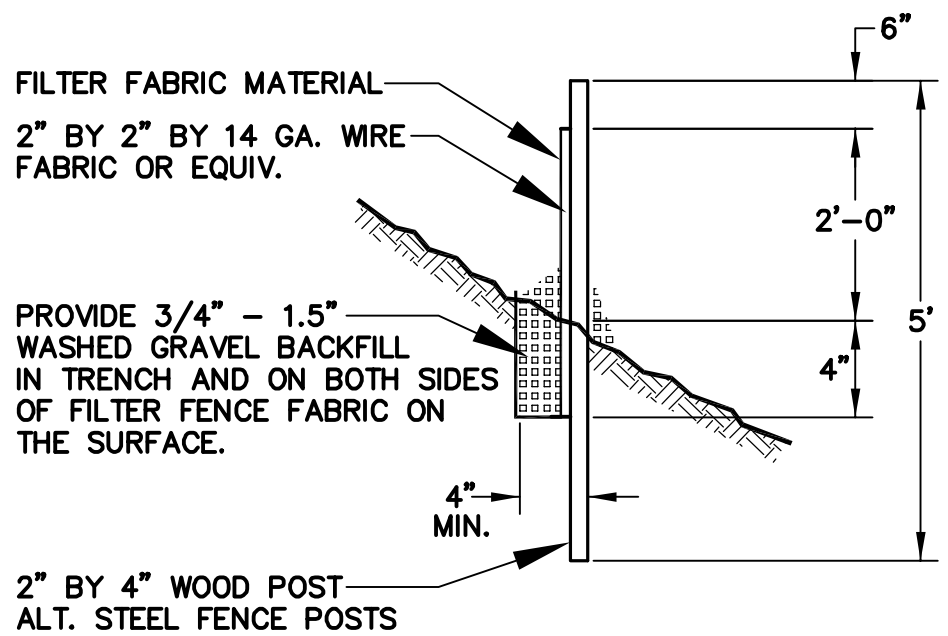
BONDED FIBER MATRIX OPTION TO GEOTEXTILES AND MATS

LIMITATIONS AND RESTRICTIONS:
RATES AND COVERAGE REQUIREMENTS SHALL BE SUBMITTED TO THE COUNTY HAS BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED APPLICATION A LETTER FROM THE HYDROSEED CONTRACTOR CERTIFYING THAT THE BFM CONJUNCTION WITH SEEDED EROSION CONTROL VEGETATION. FOR PERMANENT EROSION CONTROL PURPOSES, BFM MUST BE INSTALLED IN FROM MULTIPLE ANGLES). BFM SHALL BE APPLIED TO PROVIDE 100% COVERAGE (I.E., APPLICATION THE SLOPE. BERMS AT THE TOP OF SLOPES TO DIVERT FLOW FROM THE FACE OF THE SITE MUST BE PROTECTED WITH BROW DITCHES AND/OR DIVERSION BFM SHALL BE APPLIED AT LEAST 24 HOURS BEFORE OR AFTER RAINFALL. OR SHALLOWER SLOPES AND 4000 POUNDS PER ACRE FOR SLOPES STEEPER APPLICATION RATES SHALL BE 3500 POUNDS PER ACRE MINIMUM FOR 2:1

SILTATION AND SEDIMENT CONTROL MEASURES NOTES:

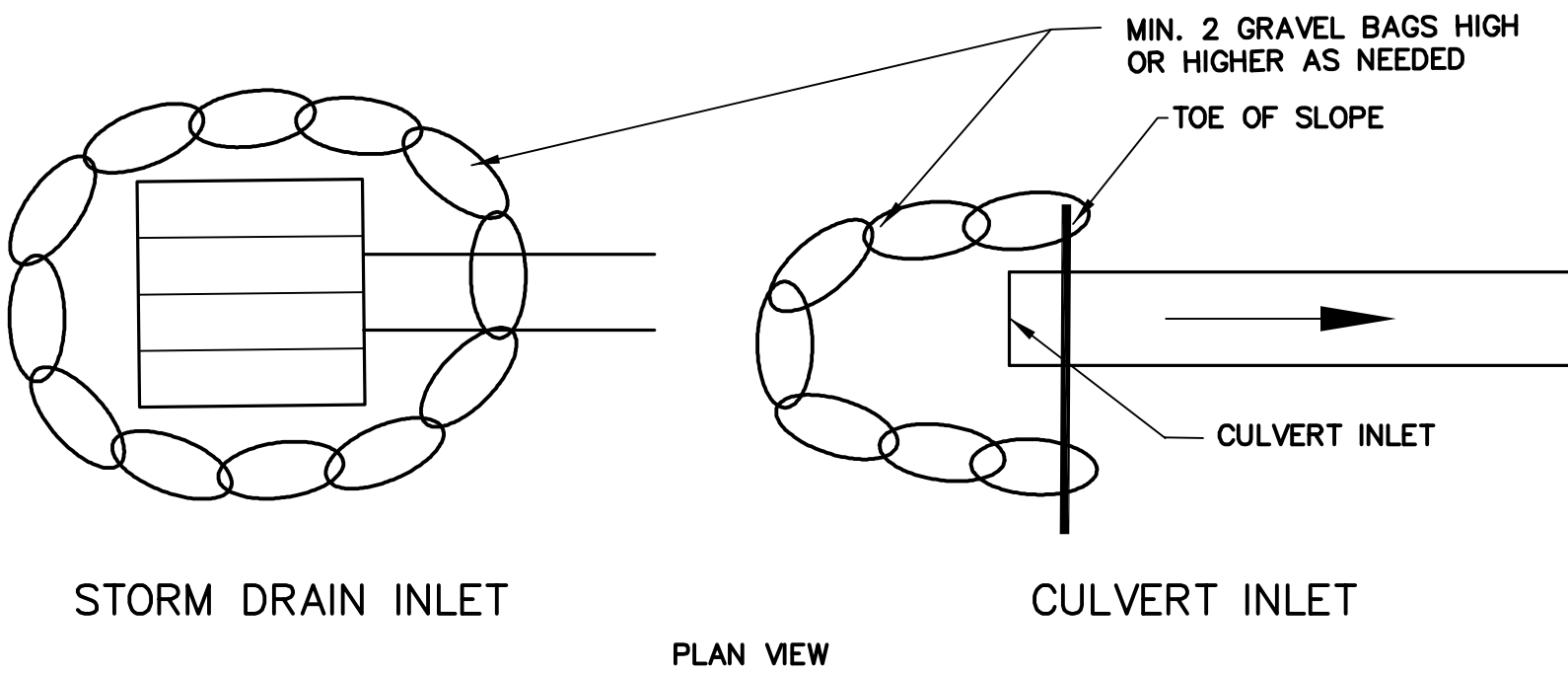
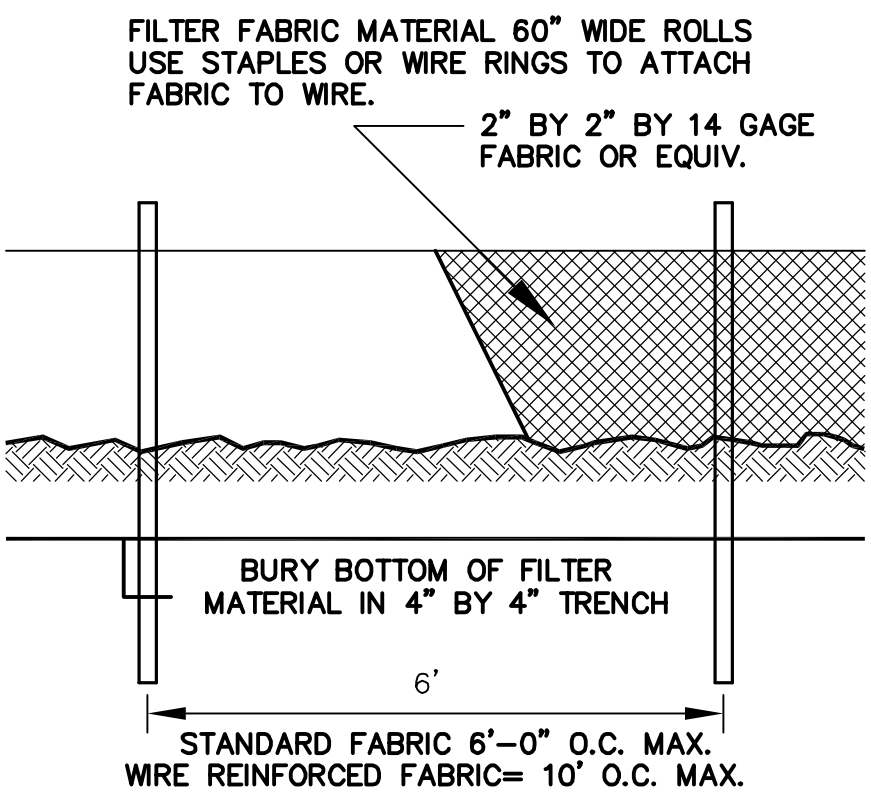
1. THE SEDIMENT BASINS SHALL BE PROVIDED AT THE LOWER END OF EVERY DRAINAGE AREA PRODUCING SEDIMENT RUNOFF. THE BASINS SHALL BE MAINTAINED AND CLEANED TO DESIGN CONTOURS AFTER EVERY RUNOFF-PRODUCING STORM. THE BASINS SHOULD BE SEMI-PERMANENT STRUCTURES THAT WOULD REMAIN UNTIL SOIL STABILIZING VEGETATION HAS BECOME WELL ESTABLISHED ON ALL ERODIBLE SLOPES.
2. SEDIMENTATION BASINS MAY NOT BE REMOVED OR MADE INOPERATIVE WITHOUT PRIOR APPROVAL OF THE COUNTY ENGINEER.
3. UTILITY TRENCHES THAT ARE CUT THROUGH BASIN DIKES OR BASIN INLET DIKES SHALL BE PLUGGED WITH GRAVEL BAGS FROM TOP OF PIPE TO TOP OF DIKE.
4. ALL UTILITY TRENCHES SHALL BE BLOCKED AT THE PRESCRIBED INTERVALS WITH A DOUBLE ROW OF GRAVEL BAGS WITH A TOP SOIL ELEVATION THAT IS TWO GRAVEL BAGS BELOW THE GRADED SURFACE OF THE STREET. GRAVEL BAGS ARE TO BE PLACED WITH LAPPED COURSES. THE INTERVALS PRESCRIBED BETWEEN GRAVEL BAG BLOCKING SHALL DEPEND ON THE SLOPE OF THE GROUND SURFACE BUT SHALL NOT EXCEED THE FOLLOWING:

GRADE OF THE STREET	INTERVAL
LESS THAN 2%	200 FEET MAXIMUM
2% TO 4%	100 FEET
4% TO 10%	50 FEET
OVER 10%	25 FEET



FILTER FABRIC FENCE DETAIL

N.T.S.

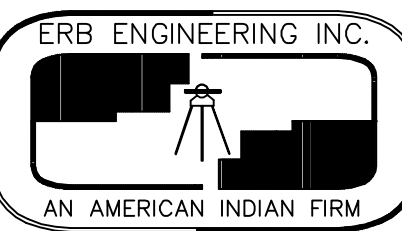


DE-SILTING FOR:
STORM DRAIN OR CULVERT INLET

NO SCALE

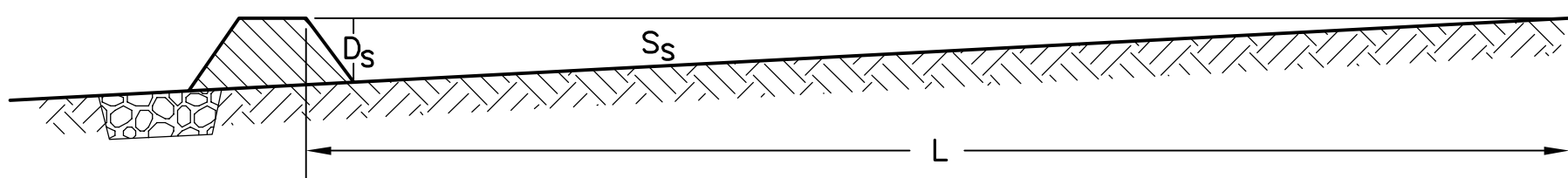


ENGINEER OF WORK

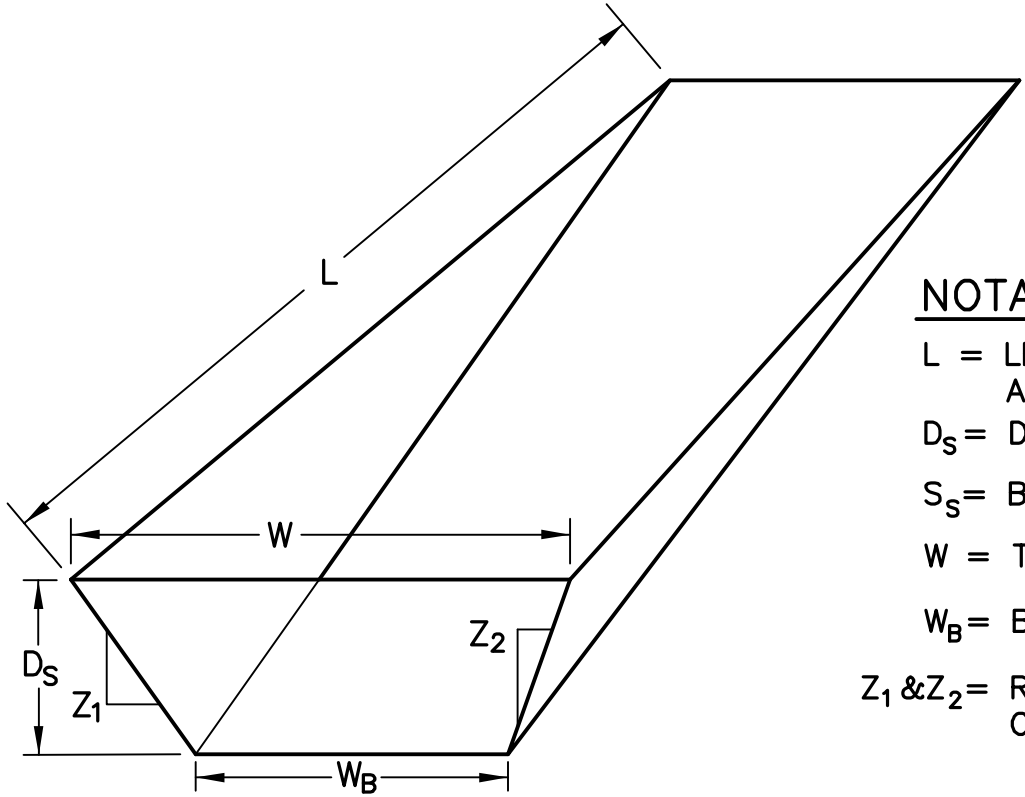


ERB ENGINEERING, INC.
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PRELIMINARY GRADING PLAN FOR TPM NO. 20962 RPL#3



(A) CROSS SECTION OF SWALE WITH CHECK DAM



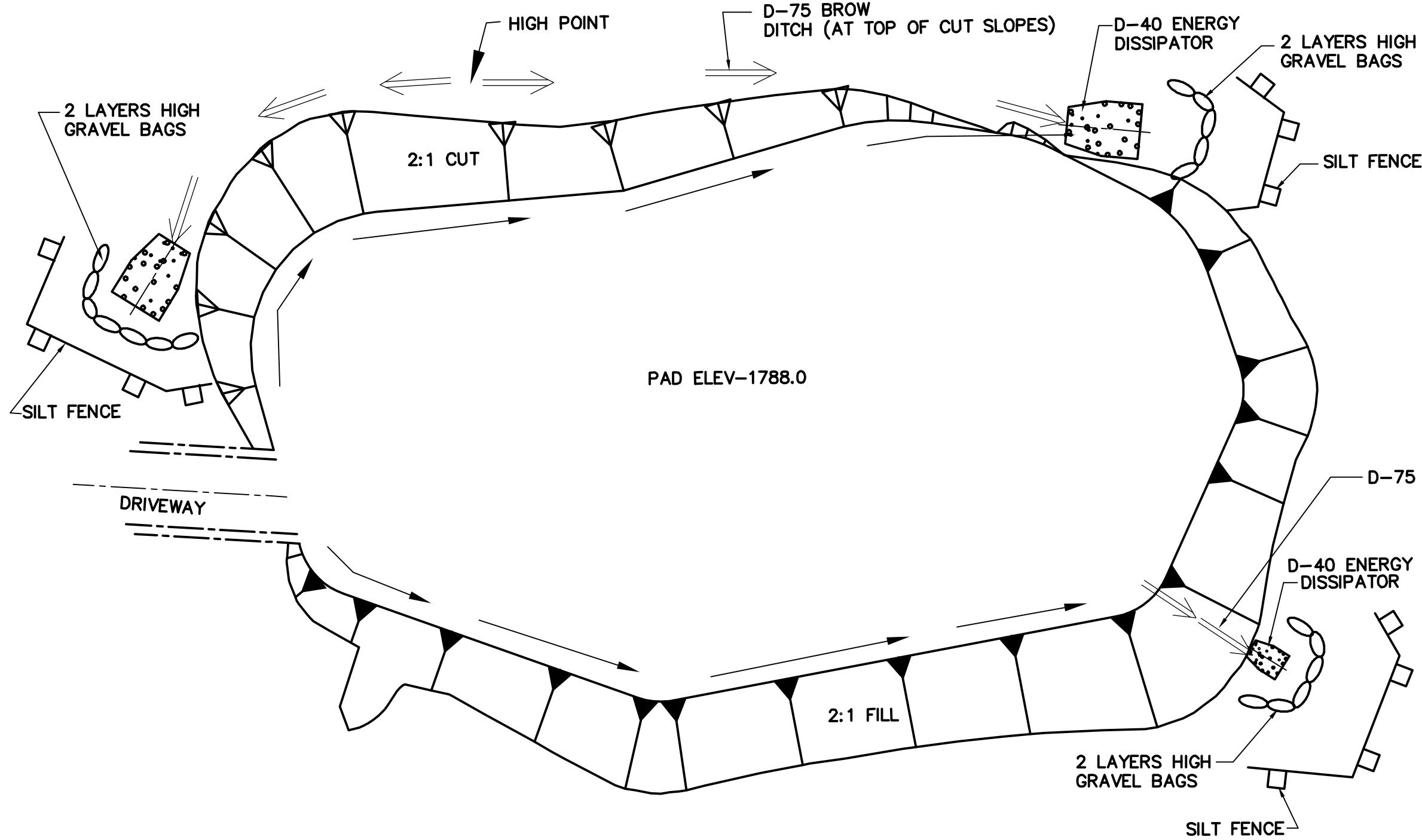
NOTATION:

L = LENGTH OF SWALE IMPOUNDMENT
A = AREA PER CHECK DAM (ft)
D_s = DEPTH OF CHECK DAM (ft)
S_s = BOTTOM SLOPE OF SWALE (ft/ft)
W = TOP WIDTH OF CHECK DAM (ft)
W_b = BOTTOM WIDTH OF CHECK DAM (ft)
Z₁ & Z₂ = RATIO OF HORIZONTAL TO VERTICAL
CHANGE IN SWALE SIDE SLOPE (ft/ft)

(B) DIMENSIONAL VIEW OF SWALE IMPOUNDMENT AREA

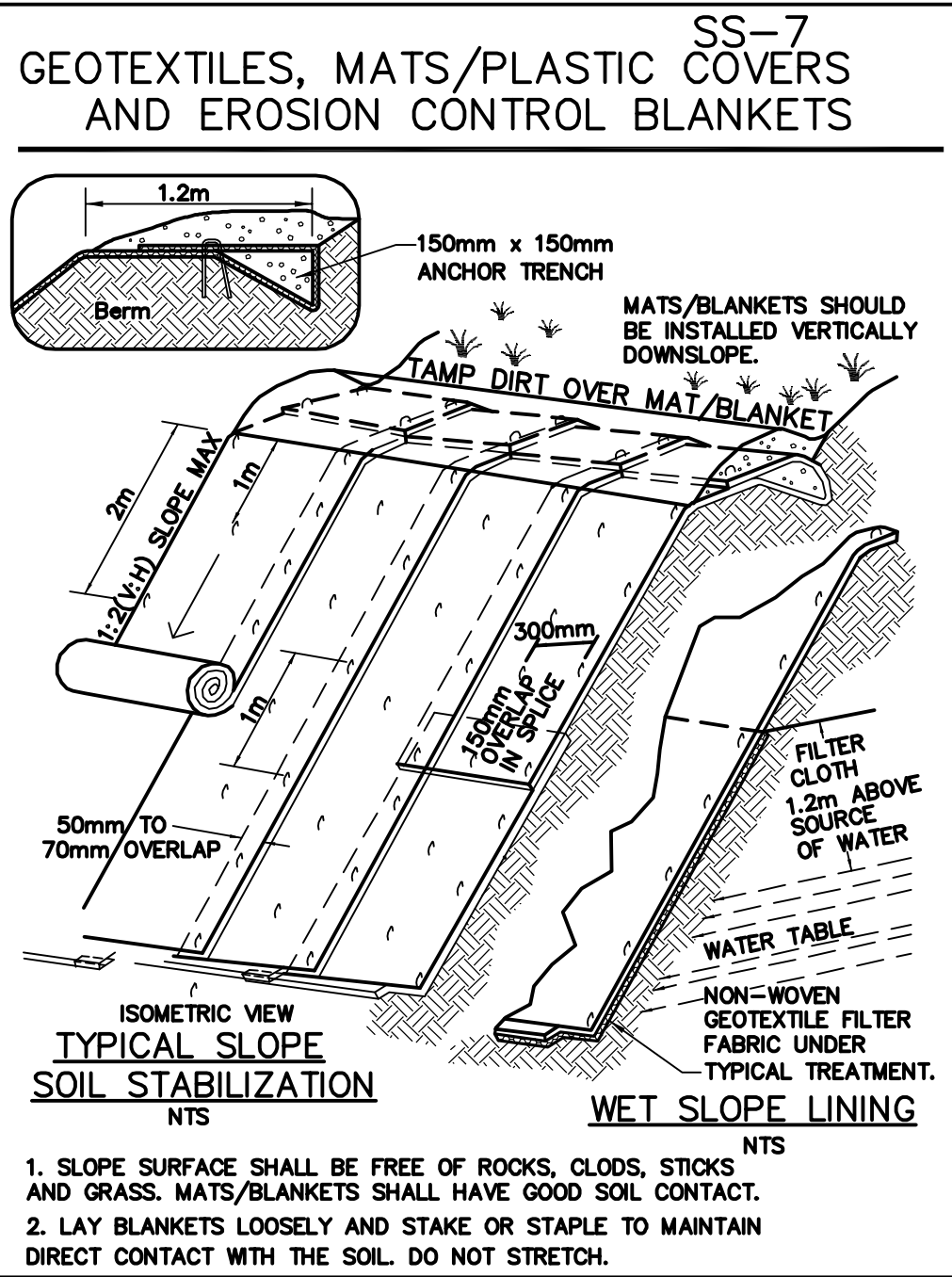
VEGETATED SWALE (TC-30)

NO SCALE



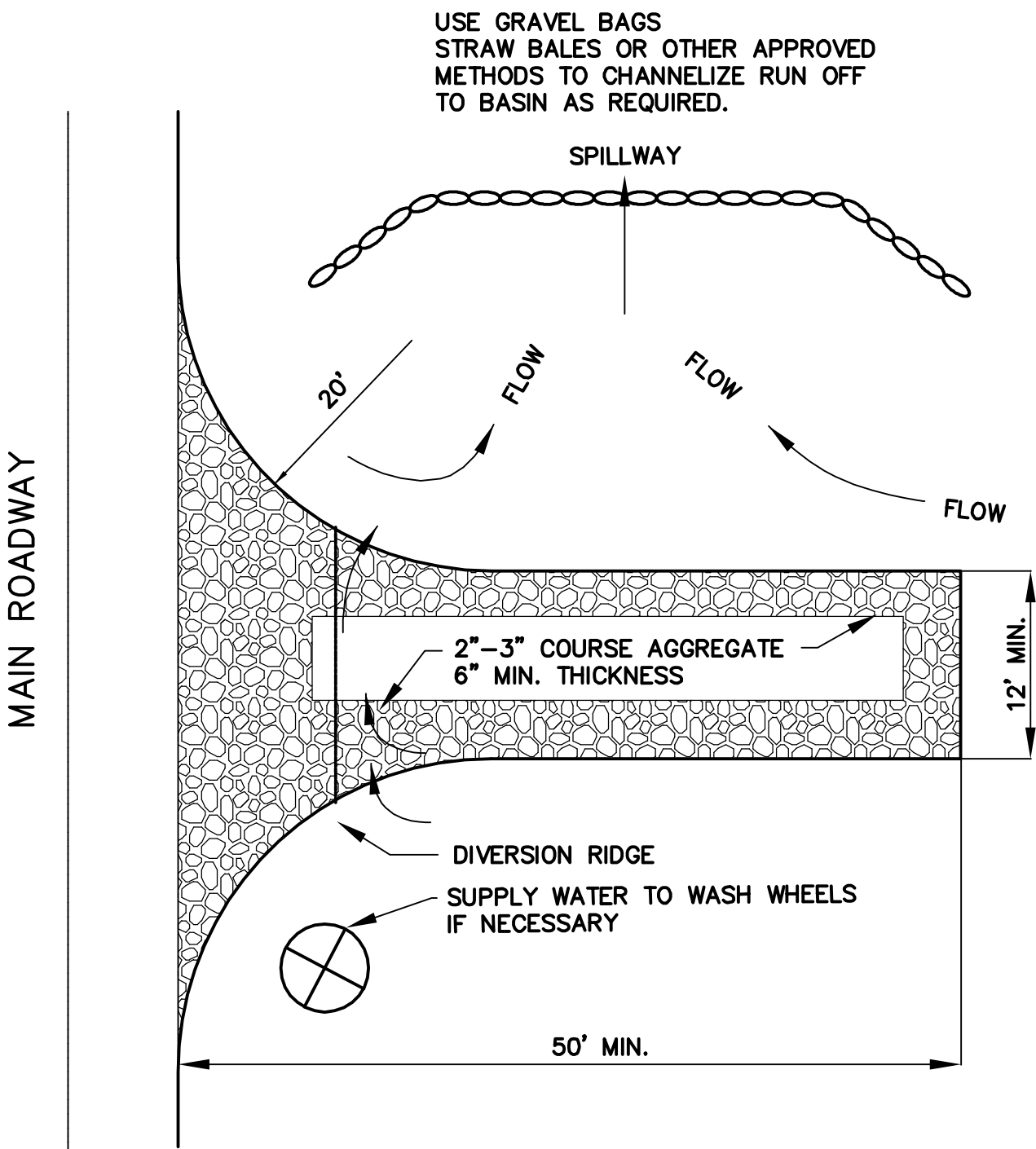
TYPICAL PAD DRAINAGE (PLAN VIEW)

NO SCALE

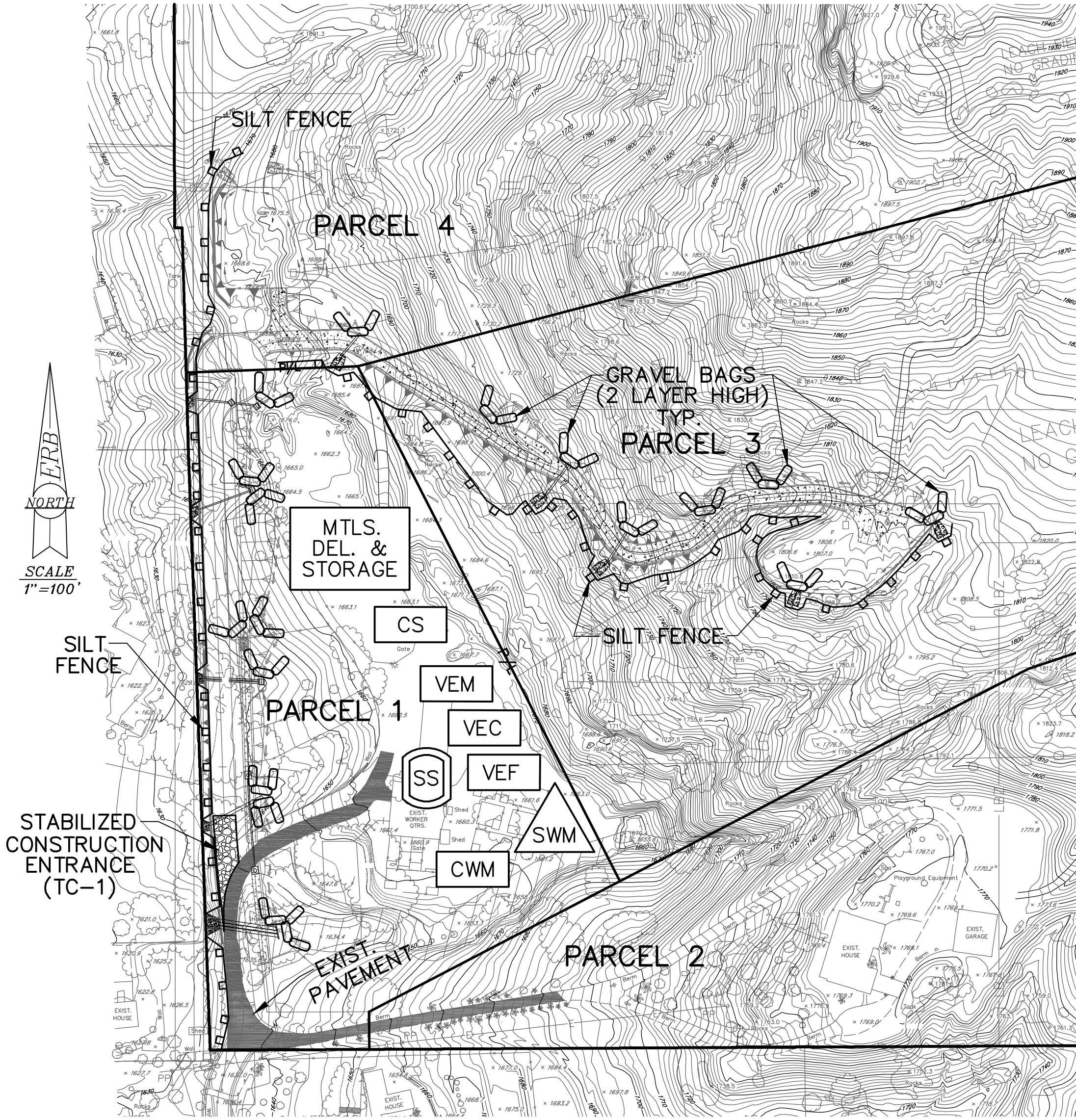


GEOTEXTILES AND MATS

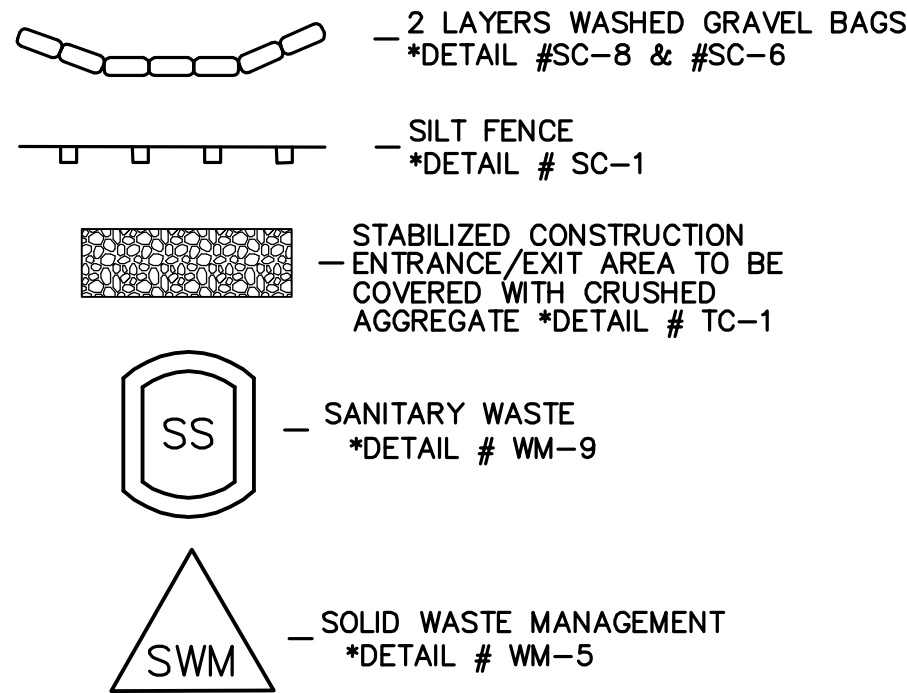
GEOTEXTILES AND MATS CAN BE USED FOR TEMPORARY OR PERMANENT SOIL STABILIZATION, AND ARE ESPECIALLY EFFECTIVE ON STEEP SLOPES AND CHANNELS. GEOTEXTILES AND MATS ARE USED TO REDUCE EROSION FROM RAINFALL IMPACT, HOLD SOIL IN PLACE, AND ABSORB AND HOLD MOISTURE NEAR THE SOIL SURFACE. THEY SHOULD BE INSPECTED MONTHLY AND AFTER SIGNIFICANT RAINFALL.



STABILIZATION OF VEHICLE TRAFFIC AREAS. ALL AREAS OF SIGNIFICANT VEHICLE TRAFFIC (SITE ENTRANCES, ACCESS ROADS, PARKING LOTS, ETC.) SHOULD BE STABILIZED IMMEDIATELY AFTER GRADING TO PREVENT EROSION AND CONTROL DUST. SITE ENTRANCES AND EXITS ARE ESPECIALLY IMPORTANT. USE GRAVEL APPROACHES TO LIMIT TRACKING OF SEDIMENT OFFSITE.



BMP LEGEND



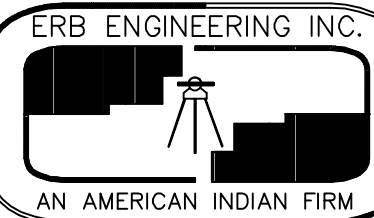
*DETAILS PER CALTRANS STORMWATER QUALITY HANDBOOK CONSTRUCTION SITE BEST MANAGEMENT PRACTICES MANUAL

OTHER SOURCE CONTROL BMP's

- PRESERVE EXISTING NATIVE TREES AND GROUND COVER.
- LANDSCAPE DESIGN MINIMIZES IRRIGATION AND RUNOFF, PROMOTES SURFACE INFILTRATION WHERE APPROPRIATE AND MINIMIZES THE USE OF FERTILIZERS AND PESTICIDES.
- MAINTAIN LANDSCAPING USING MINIMUM OR NO PESTICIDES.
- SELECT PLANTS APPROPRIATE TO SITE SOILS, SLOPES, CLIMATE, SUN, WIND, RAIN, LAND USE, AIR MOVEMENT, ECOLOGICAL CONSISTENCY AND PLANT INTERACTIONS.

MTLS. DEL. & STORAGE	MATERIALS DELIVERY & STORAGE *DETAIL # WM-1
CWM	CONCRETE WASTE MANAGEMENT *DETAIL WM-8
CS	STOCKPILE MANAGEMENT *DETAIL WM-3
VEC	VEHICLE AND EQUIPMENT CLEANING *DETAIL NS-8
VEF	VEHICLE AND EQUIPMENT FUELING *DETAIL NS-9
VEM	VEHICLE AND EQUIPMENT MAINTENANCE *DETAIL NS-10

ENGINEER OF WORK



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